

**ORIGINAL**

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of )  
 )  
Redesignation of the 17.7 -19.7 GHz Frequency )  
Band, Blanket Licensing of Satellite Earth Sta- )  
tions in the 17.7 -20.2 GHz and 27.5-30.0 GHz )  
Frequency Bands, and the Allocation of Addi- )  
tional Spectrum in the 17.3-17.8 GHz and )  
24.75-25.25 GHz Frequency Bands for Broad- )  
cast Satellite-Service Use )

IB Docket No. 98-172  
RM-9005  
RM-9118

To: The Commission

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**FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY**

**REPLY COMMENTS OF AIRTOUCH COMMUNICATIONS, INC.**

Pamela J. Riley  
David A. Gross  
Steve B. Sharkey

AirTouch Communications, Inc.  
1818 N Street, N.W.  
Washington, D.C. 20036  
(202) 293-3800

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## SUMMARY

The comments confirm that terrestrial FS users in the 18 GHz band provide critical services that serve the public interest, including important backhaul services that support cellular and PCS networks, broadcast auxiliary licensees, and MDS, LMDS, WCS, DEMS, and 38 GHz providers. 18 GHz systems also support essential public safety and emergency operations, including weather radar, the FBI and FAA, local emergency personnel, and 911 service, in addition to meeting the emergency communications needs of oil production and transport entities and railroads.

The record also demonstrates that 18 GHz frequencies are uniquely favored because they are well-suited for use on short-haul routes and in high density areas. 18 GHz equipment is also extremely cost effective and small in size, allowing greater flexibility in mitigating zoning concerns and allowing collocation. Spectrum unavailability in other bands has led to a migration to the 18 GHz band. Given these unique spectrum characteristics of the 18 GHz band, coupled with the critical terrestrial uses identified above, it is essential that terrestrial FS users of the 18 GHz be protected by any plan adopted by the Commission.

At present, the Commission's band plan proposal represents an unacceptable 53.3% *reduction* in terrestrial FS spectrum availability. This is particularly onerous given the spectrum losses FS users have suffered in other Commission reallocation proceedings over the last several years. To mitigate the harshness of the Commission's plan for terrestrial FS users, while allowing satellite systems reasonable access to spectrum to develop and deploy their systems, AirTouch endorses the band plan submitted by the Fixed Section of the Telecommunications Industry Association.

AirTouch strongly objects to Comsearch's proposal that terrestrial FS users sacrifice the sole terrestrial FS exclusive primary use allocation — 17.7-18.3 GHz — set forth in the Commission's band plan, and instead agree to share the 17.7-18.55 GHz band on a co-primary basis with GSO/FSS. The overall result of Comsearch's plan is that terrestrial FS users would *lose* access to 750 MHz of previously shared spectrum (leaving them with 1250 MHz of spectrum), and gain *no* exclusive primary use spectrum in return, while satellite users would maintain their current access to 2000 MHz of 18 GHz spectrum, of which 750 MHz would be exclusive primary use. Likewise, AirTouch opposes the unjustified proposals of some satellite carriers to allow a BSS allocation from 17.7-17.8 GHz to the ultimate exclusion of terrestrial FS users. These proposals are patently unfair and ignore the spectrum requirements of terrestrial FS users.

AirTouch opposes the suggestions by some GSO/FSS providers that because the Commission has approved an alleged 1000 MHz of "unencumbered" spectrum in the uplink, it must do the same in the downlink. To the contrary, the Commission designated 750 MHz of exclusive use spectrum and 250 MHz of shared use spectrum for GSO/FSS uplinks. Accordingly, it is absolutely consistent for the Commission to propose 750 MHz of unshared spectrum and 250 MHz of shared spectrum for GSO/FSS downlinks.

Finally, AirTouch supports the Petition for Interim Relief filed by TIA's Fixed Section. The Commission should clarify that any terrestrial FS systems applied for after September 18, 1998 in the affected bands be given co-primary status until the effective date of a final *Report and Order* in this proceeding, at which time the systems would be grandfathered. In all events, the Commission must ensure that any grandfathered 18 GHz terrestrial FS users that are ultimately displaced be provided full compensation to relocate to comparable facilities, with a reasonable transition arrangement to avoid service disruption.

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To: The Commission		

**REPLY COMMENTS OF AIRTOUCH COMMUNICATIONS, INC.**

AirTouch Communications, Inc. ("AirTouch")<sup>1</sup> hereby replies to those comments submitted in response to the Commission's *Notice of Proposed Rulemaking*, IB Docket No. 98-172, FCC 98-235 (rel. Sept. 18, 1998), *summarized*, 63 Fed. Reg. 54100 (1998) ("*NPRM*"). The Comments confirm that terrestrial fixed services ("FS") in the 18 GHz band provide critical services that serve the public interest, and that the 18 GHz band is uniquely suited to support those services. The comments also demonstrate the diminishing spectrum available for important terrestrial FS requirements. Thus, AirTouch reiterates herein that it is essential that any band segmentation plan that is adopted be designed to protect and preserve existing and future terrestrial FS operations.

AirTouch believes its 18 GHz band proposal, and that of the Fixed Point-to-Point Section of the Wireless Communications Division of the Telecommunications Industry Association

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<sup>1</sup> AirTouch is a CMRS provider with interests in cellular, paging and PCS systems that utilize, in part, 18 GHz terrestrial fixed point-to-point microwave services to provide backhaul support for its CMRS operations. Accordingly, it has a direct interest in the outcome of this proceeding.

("TIA Fixed Section Proposal"), will adequately protect terrestrial FS needs, while also allowing satellite uses to develop in the 18 GHz band. Accordingly, the Commission should adopt one of these proposed allocation approaches.

**I. THE COMMENTS DEMONSTRATE THE NEED TO PROTECT EXISTING AND FUTURE TERRESTRIAL FS USES IN THE 18 GHZ BAND**

The record compiled in this proceeding clearly demonstrates that the 18 GHz band is critically important to meet the existing and future requirements of terrestrial FS users. The record shows that terrestrial FS users rely heavily upon 18 GHz frequencies to provide, *inter alia*, local service customer links, cell-site interconnects, backbone point-to-point, high speed Internet access, and video distribution.<sup>2</sup> No satellite licensee has challenged this fact. For example, terrestrial FS users rely upon the 18 GHz band to provide to following important services that benefit the public:

- ***Backhaul Service.*** The 18 GHz band is used to provide important backbone radio links. Both cellular and PCS use the 18 GHz band where landline links are not available or economical,<sup>3</sup> and to support emergency service restoration plans in areas prone to disasters where landline connections may not be reliable.<sup>4</sup> The broadcast auxiliary service likewise relies upon the 18 GHz band to provide backhaul support for the remote video and audio feeds that are necessary to provide local television news programming.<sup>5</sup> 18 GHz frequencies also support basic exchange telephone service and conventional telephone service to rural and remote locations, which would otherwise not be possible.<sup>6</sup>
- ***Emergency/Critical Operations.*** In addition, the 18 GHz band supports critical public safety and emergency operations by providing primary and

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<sup>2</sup> See Comments of Fixed Wireless Communications Coalition ("FWCC") at 6; Tadian Microwave Networks ("Tadian") at 4.

<sup>3</sup> See Comments of BellSouth Corporation ("BSC") at 7; Cellular Telecommunications Industry Association ("CTIA") at 3; FWCC at 6; SBC Communications, Inc. ("SBC") at 3.

<sup>4</sup> See Comments of AirTouch at 4; GTE Service Corporation ("GTE") at 4 & n.8.

<sup>5</sup> See Comments of Maximum Service Television, Inc. ("MSTV") at 2.

<sup>6</sup> See Comments of GTE at 4; SBC at 2.

route diversity service for weather radar, the FBI and the FAA, local emergency personnel, and 911 service.<sup>7</sup> Oil production and transport entities also use 18 GHz links to alert public safety officials to emergency situations, as well as to support the production, refining and transportation processes.<sup>8</sup> Railroads similarly use the 18 GHz band to carry railroad voice and data traffic necessary to advise employees and the general public of dangerous conditions, and to control and track train movements.<sup>9</sup>

- ***Competitive Alternatives.*** The 18 GHz band is also used to provide support for competitive alternatives to a variety of existing services. Specifically, it provides backbone interconnection for such developing services as MDS, LMDS, WCS, DEMS, and 38 GHz, which are expected to provide competition in the provision of cable, high speed data, and local exchange services.<sup>10</sup> 18 GHz frequencies also support competitive local exchange services<sup>11</sup> and are used to provide video programming services that provide a competitive alternative to incumbent cable services.<sup>12</sup>

All of these uses serve the public interest and, for all of these uses, the 18 GHz band is the band of choice for a variety of reasons. First, in many cases zoning considerations compel the use of 18 GHz frequencies because 18 GHz radios and antennas are smaller and less conspicuous than their 6 and 11 GHz counterparts, and thus are more aesthetically “palatable” to local zoning boards.<sup>13</sup> Second, because of tower loading concerns, 18 GHz radios and antennas are favored because their small size and weight allows them to fit safely on smaller towers, and also allows other carriers to collocate their dishes on the same tower.<sup>14</sup> Third, because of their propagation characteristics, 18 GHz frequencies are particularly well-suited for use on short-haul routes and in

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<sup>7</sup> See Comments of CTIA at 3 n.3; SBC at 2.

<sup>8</sup> See Comments of American Petroleum Institute (“API”) at 3; BP Communications Alaska, Inc. (“BP”) at 1.

<sup>9</sup> See Comments of Association of American Railroads (“AAR”) at 3-4.

<sup>10</sup> See Comments of Wireless Communications Association International, Inc. (“WCA”) at 2-4.

<sup>11</sup> See Comments of Winstar Communications, Inc. (“Winstar”) at 2,6.

<sup>12</sup> See Comments of BSC at 4; RCN Telecom Services, Inc. (“RCN”) at 1; WCA at 2-3.

<sup>13</sup> See Comments of SBC at 3, 8.

<sup>14</sup> See Comments of AirTouch at 12 n.22; SBC at 3, 8.

high density areas.<sup>15</sup> Fourth, 18 GHz equipment is approximately 25-50% more cost effective than similar equipment in the 6 and 11 GHz bands.<sup>16</sup> Finally, spectrum unavailability in other bands due to increased demand, coupled with the Commission's reallocation policies in other proceedings, has led to a migration to the 18 GHz band for ongoing FS requirements.<sup>17</sup>

Based on the foregoing, it is clear that 18 GHz terrestrial FS users are providing important services benefitting the public, that these uses will have ongoing and increasing spectrum requirements, and that there are a variety of unique reasons why the 18 GHz band is favored over other bands to support these services. Moreover, there are literally "tens of thousands of terrestrial fixed links" currently licensed in the 18 GHz band which may be adversely affected by this proceeding, while there are *no* commercial FSS systems yet in operation in the band.<sup>18</sup> Accordingly, it is beyond question that any 18 GHz band plan adopted by the Commission must protect these terrestrial FS uses, as well as provide for continued development of FS uses. As discussed below, AirTouch believes that its band proposal, as well as that of TIA's Fixed Section, adequately protect the needs of terrestrial FS users, while providing sufficient opportunities for FSS development in the band.

## **II. LIKE OTHER TERRESTRIAL FS USERS, AIRTOUCH GENERALLY SUPPORTS THE PROPOSAL OF TIA'S FIXED SECTION**

In this proceeding, there is strong support among terrestrial FS users for the alternate band proposal submitted by TIA's Fixed Section, which has also been endorsed by the Fixed

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<sup>15</sup> See Comments of AirTouch at 4-5; Winstar at 2.

<sup>16</sup> See Comments of GTE at 4 n.9.

<sup>17</sup> See Comments of MSTV at 2; FWCC at 7.

<sup>18</sup> See *NPRM* at ¶¶ 8, 12.



Wireless Communications Coalition (“FWCC”).<sup>19</sup> In these reply comments, AirTouch hereby lends its support to TIA’s Fixed Section Proposal, as follows.

In its comments, AirTouch noted that the Commission’s proposed 18 GHz band plan would effectively eliminate the ability of terrestrial FS operators to implement future operations in the *narrowband* point-to-point frequencies (18.92-19.16 GHz, paired with 18.58-18.82). AirTouch, therefore, proposed modifying the Commission’s plan to preserve existing and future terrestrial FS *wideband* uses of the 18 GHz band by allowing terrestrial FS users to maintain their current shared co-primary status in the 19.26-19.3 GHz band, and by rejecting the proposal to allow Broadcast Satellite Service (“BSS”) operations in the 17.7-17.8 GHz band, as discussed below in Section II.A. This is consistent with TIA’s Fixed Section proposal to preserve the existing 17.7-18.14 and 19.26-19.76 GHz paired FS primary allocations,<sup>20</sup> and the Commission’s proposed primary allocation to terrestrial FS users at 17.7-18.3 GHz. In this regard, AirTouch notes that it *opposes* Comsearch’s proposal to surrender the terrestrial FS 17.7-18.3 GHz exclusive primary allocation, as discussed in Section II.B, below.

Because elimination of the availability of the 18.92-19.16 GHz portion of the narrowband allocation renders the pairing at 18.58-18.82 GHz useless, AirTouch recommended modifying the band plan to allow terrestrial FS and Geostationary Orbit Fixed Satellite Service (“GSO/FSS”) shared use of 18.3 to 18.55 GHz, in lieu of 18.55 to 18.8 GHz, in order to maintain, as closely as possible, current terrestrial uses of the 18 GHz band. TIA’s Fixed Section agrees, but goes slightly farther to recommend preserving the existing 18.14 to 18.58 GHz primary cable

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<sup>19</sup> See, e.g., Comments of AAR at 3; FWCC at ii; GTE at 7-8; Independent Cable and Telecommunications Association (“ICTA”) at ii; MSTV at 1-2; Tadrian at 3; *see also* BSC at 10-11; WCA at 4-5.

<sup>20</sup> See Comments of TIA Fixed Section at 3. The allocation for Non-Geostationary Orbit Fixed Satellite Service (“NGSO/FSS”) primary use would thus be 18.8 to 19.26 GHz. *See id.* at 4.

television relay systems (“CARS”) allocation. This would be achieved by changing the GSO/FSS primary allocation to 18.58 to 18.8 GHz.<sup>21</sup> AirTouch has no objection to TIA’s Fixed Section proposal in this regard.

TIA’s Fixed Section also proposes that incumbent licensees in the narrowband frequencies (18.58-18.82 and 18.92-19.16 GHz) be grandfathered. AirTouch agrees, but further believes that grandfathered terrestrial FS operators must be allowed to make certain reasonable modifications to their systems without losing primary status, or that such incumbents must be fairly relocated, as discussed in Section II.C, below.<sup>22</sup> Finally, TIA’s Fixed Section proposes that the wideband 18 GHz frequencies preserved for terrestrial FS use be rechannelized. AirTouch agrees, as discussed in Section II.D, below.

**A. AirTouch Opposes Satellite Proposals to Ultimately Exclude Terrestrial FS Users from the 17.7-17.8 GHz Band in Favor of an Unjustified BSS Allocation**

AirTouch strongly opposes the proposals of some satellite carriers to allow a BSS allocation in the 17.7-17.8 GHz band to the ultimate exclusion of existing and future terrestrial FS users. Specifically, Lockheed Martin Corporation (“Lockheed”) argues that the Commission should implement a BSS allocation in the Ka-band from 17.3-17.8 GHz when the international BSS allocation becomes effective on April 1, 2007.<sup>23</sup> Pegasus Development Corporation (“Pegasus”) agrees, but believes that the Commission should do all it can to move up the BSS allocation date.<sup>24</sup> Other satellite providers go so far as to assert that the Commission should set aside a spectrum allocation for BSS in these bands *now*, even though BSS operators will not be able to use the

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<sup>21</sup> See Comments of TIA Fixed Section at 3-4.

<sup>22</sup> See also Comments of AirTouch at 10-12.

<sup>23</sup> See Comments of Lockheed at 24.

<sup>24</sup> See Comments of Pegasus at 15.

spectrum until 2007.<sup>25</sup> To effectuate these proposals, the satellite carriers seek to impose secondary status on any terrestrial FS applications filed in the 17.7-17.8 GHz band after the release date of the *NPRM*, and to transition all terrestrial FS uses out of that portion of the band completely by 2007.<sup>26</sup>

These proposals are not fair-minded and blatantly ignore the existing and future spectrum needs of terrestrial FS users in the 17.7-17.8 GHz portion of this spectrum. The 17.7-17.8 GHz band is part of the limited exclusive primary use spectrum allocation proposed for terrestrial users. Given the losses which terrestrial FS users are already suffering under the Commission's proposal — resulting in the virtual elimination of the narrowband point-to-point FS uses in the 18 GHz band — it is critical that existing 18 GHz wideband channels, including those at 17.7-17.8 GHz, not be disrupted. Moreover, there is no demonstrated justification for doing so. As Skybridge L.L.C. ("Skybridge") notes, "there is no shortage of BSS capacity in the U.S.,"<sup>27</sup> yet there is a dwindling availability of spectrum for terrestrial FS uses. Accordingly, the Commission should reject proposals to allow any BSS encroachment in the 17.7-17.8 GHz band, and preserve this spectrum for the exclusive use of terrestrial FS providers.<sup>28</sup>

**B. AirTouch Opposes Comsearch's Co-Primary Proposal for the 17.7-18.55 GHz Band**

AirTouch strongly objects to Comsearch's proposal that terrestrial FS users sacrifice the sole terrestrial FS primary allocation — 17.7-18.3 GHz — set forth in the Commission's band plan, and instead agree to share the 17.7-18.55 GHz band on a co-primary basis with GSO/FSS. The overall result of Comsearch's plan is that terrestrial FS users *lose* access to 750 MHz of previously

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<sup>25</sup> See Comments of DIRECTV Enterprises, Inc. ("DIRECTV") at 3-10; Telecommunications Industry Association, Spectrum & Orbit Utilization Section, Satellite Communications Division ("TIA-SOUS") at 4.

<sup>26</sup> See Comments of DIRECTV at 9-10; TIA-SOUS at 4.

<sup>27</sup> Comments of Skybridge at 4.

<sup>28</sup> See *also* Comments of AirTouch at 8-9.

shared spectrum (leaving them with 1250 MHz of spectrum), and gain *no* primary use spectrum in return, while satellite users maintain their current access to 2000 MHz of 18 GHz spectrum, of which 750 MHz is exclusive primary use. This is patently unfair and disregards the spectrum requirements of terrestrial FS users.

While the Commission's new proposal greatly reduces the amount of shared spectrum terrestrial FS users have access to, at least it offers something — a “sliver” of exclusive use spectrum from 17.7-18.3 GHz — in return. Comsearch's proposal unfairly favors satellite users, because it gives them exclusive use of spectrum in addition to large chunks of shared spectrum; by contrast, it represents a total loss for terrestrial users who would still be required to share spectrum, but have access to less of it. Shared use of spectrum will significantly degrade the ability of terrestrial FS users to deploy new systems and provide important services. Accordingly, Comsearch's proposal fails to serve the public interest and should be rejected.<sup>29</sup>

**C. AirTouch Opposes any Plans to Weaken the Commission's Grandfathering Proposals Without Fair Relocation and the Assurance of Comparable Facilities**

The Commission has proposed that existing terrestrial FS systems in bands allocated to FSS on an exclusive basis be grandfathered, subject to the condition that they would not be allowed to expand or change their current operations in any manner that might increase interference to satellite earth stations.<sup>30</sup> AirTouch demonstrated in its comments that this condition ignores the rights of existing users.<sup>31</sup> Winstar agrees, noting that “[r]easonable modifications must also be

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<sup>29</sup> Comsearch also suggests surrendering the 19.26-19.3 GHz portion of the wideband allocation to exclusive NGSO/FSS use. *See* Comments of Comsearch at 4, 5 n.10. AirTouch opposes this suggestion, which would also make the 17.7-17.74 GHz pairing worthless to most terrestrial FS users. Again, given terrestrial FS narrowband losses, it is essential that the wideband spectrum allocation be preserved. *See* Comments of AirTouch at 7.

<sup>30</sup> *See NPRM* at ¶¶ 40-41.

<sup>31</sup> *See* Comments of AirTouch at 10-11.

permitted to grandfathered systems so as to facilitate growth and other changes.”<sup>32</sup> Likewise, GTE states that “[g]randfathered licensees must have the ability to expand their networks to meet normal growth in a cost effective manner and to realize the maximum efficiency of their existing equipment.”<sup>33</sup> If grandfathered carriers are not allowed to make reasonable modifications to their facilities, CTIA cautions that carriers will be forced to “abandon their existing grandfathered facilities.”<sup>34</sup>

Accordingly, AirTouch reiterates that the Commission must allow incumbent terrestrial FS licensees to make certain modifications to their existing systems without losing primary status.<sup>35</sup> Otherwise, licensees will be inhibited or prevented from making inevitable and necessary changes to their facilities and will, as a practical matter, be kept from taking advantage of new equipment and technologies. This will disserve the public interest and disrupt services.

Moreover, if the Commission determines that future modifications and expansions are not possible because of sharing concerns, then the grandfathered licensees must be fairly relocated.<sup>36</sup> Specifically, consistent with previous Commission policies, the Commission must ensure that any displaced 18 GHz terrestrial FS users are provided full compensation to relocate and sufficient time to make the transition, and that any such relocation be to comparable facilities that are fully paid for, tested, and approved.<sup>37</sup> The Commission must also be mindful of the unique

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<sup>32</sup> See Comments of Winstar at 12.

<sup>33</sup> See Comments of GTE at 7.

<sup>34</sup> See Comments of CTIA at 4.

<sup>35</sup> See Comments of AirTouch at 11 (citing *Public Notice*, “Two Gigahertz Fixed Microwave Licensing Policy,” Mimeo 23115 (May 14, 1992)); discussion *infra* at 16-17; see also Comments of Winstar at 12 & n.8.

<sup>36</sup> See, e.g., Comments of BSC at 8; see also Comments of AirTouch at 12.

<sup>37</sup> See *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, ET Docket No. 92-9, *First Report and Order and Third Notice of Proposed Rulemaking*, 7 F.C.C.R. 6886, 6890 (1992) (subsequent history omitted); *Amendment of the Commission’s Rules Regarding a Plan for the Sharing of Costs of Microwave Relocation*, WT Docket No. 95-157, *First Report and Order and Further Notice of Proposed Rulemaking*, 11

characteristics of the 18 GHz band, and recognize that finding comparable facilities may be difficult given tower loading<sup>38</sup> and spectrum availability<sup>39</sup> issues, thus compelling the reallocation of additional spectrum.

Several satellite providers argue that the Commission's grandfathering policy should not be permanent, but should have a sunset date.<sup>40</sup> As noted, AirTouch believes the Commission's grandfathering policy does not go far enough and should be strengthened to allow reasonable modifications. If this is not possible because permanent sharing is infeasible, then any decision to establish a sunset date *must* include a fair relocation policy, as discussed above. The Commission should apply such a relocation compensation policy to the satellite providers in this proceeding who may displace incumbent 18 GHz terrestrial FS users, just as it recently did in the case of MSS providers who will displace 2 GHz microwave licensees.<sup>41</sup> In its MSS decision, the Commission declined "to accept the MSS Coalition's position that international satellite-based systems should not have to compensate displaced and dislocated incumbent users of the spectrum," because it found that "all incumbents arguably could be directly, adversely impacted by such a decision."<sup>42</sup> In so doing, the Commission emphasized the importance of sharing spectrum where possible and, where

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F.C.C.R. 8825, 8827-28 (1996); *Second Report and Order*, 12 F.C.C.R. 2705, 2706-07 (1997); 47 C.F.R. §§ 101.69-101.81.

<sup>38</sup> For example, AirTouch reiterates that if relocation to bands outside of the 18 GHz range is required, the actual costs of providing a replacement system may include more than simply replacing the antennas and radios. Specifically, if relocation must be made to the 6 or 11 GHz bands, those frequency ranges require the microwave dishes be at a higher mounting height than 18 GHz dishes, and the dishes themselves are larger. Such larger, higher-mounted equipment may raise tower loading concerns, especially on those tower sites that are shared with co-locators. *See* Comments of AirTouch at 12 n.22; *see also* Comments of SBC at 8.

<sup>39</sup> *See infra* Section III.A.

<sup>40</sup> *See, e.g.*, Comments of Lockheed at 13; Loral Space & Communications Ltd. ("Loral") at 4; Teledesic LLC ("Teledesic") at 13-15; *see also* TIA-SOUS at 8-9.

<sup>41</sup> *See Allocation of Spectrum at 2 GHz for use by the Mobile-Satellite Service*, ET Docket No. 95-18, *Memorandum Opinion and Order and Third Notice of Proposed Rulemaking*, FCC 98-309 at ¶¶ 13, 16 (1998).

<sup>42</sup> *Id.* at ¶ 16.

not possible, relocating incumbents in such a manner as to “*prevent[] disruption to incumbent operations, and minimiz[e] the economic impact on incumbent licensees.*”<sup>43</sup>

Given these factors, the Commission should reject Teledesic’s proposals to alter the Commission’s relocation procedures, which were just applied to MSS providers in the 2 GHz band last month,<sup>44</sup> by basing relocation payments on the unamortized cost of the old equipment being replaced. Teledesic’s proposal would fail to ensure that the replacement system provided to a terrestrial FS user is to “comparable facilities”<sup>45</sup> and is unjustified. The Commission has previously stated that the relocation costs to provide such facilities include:

[A]ll engineering, equipment, site and FCC fees, as well as any legitimate and prudent transaction expenses incurred by the [fixed microwave service] licensee that are *directly attributable* to an involuntary relocation, subject to a cap of two percent of the hard costs involved. Hard costs are defined as the *actual costs associated with providing a replacement system*, such as equipment and engineering expenses.<sup>46</sup>

At a minimum, relocation payments must cover these costs in the case of displaced 18 GHz terrestrial FS users. Further, as in other proceedings where the Commission has addressed relocation issues, it must take into account the unique circumstances present in the case of the spectrum at issue — here 18 GHz — to determine the categories of costs which should be recompensable.

**D. AirTouch Supports the Rechannelization of 18 GHz Wideband Spectrum, As Well As the Creation of Additional Spectrum in Other Bands, to Offset the Loss of 18 GHz Narrowband Spectrum for Terrestrial FS Users**

Several commenters note that in order to accommodate terrestrial FS growth and/or relocation from the narrowband grandfathered systems, as well as to meet future demand for new

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<sup>43</sup> *Id.* at ¶ 26 (emphasis added)

<sup>44</sup> *See* Comments of Teledesic at 15-19.

<sup>45</sup> *See* 47 C.F.R. § 101.75(b).

<sup>46</sup> *See* 47 C.F.R. § 101.75(a)(1) (emphasis added).

systems, the Commission must rechannelize the remaining wideband spectrum bands from 17.7-18.14 GHz and 19.26-19.7 GHz.<sup>47</sup> Specifically, TIA and Tadrian propose that the frequencies be rechannelized in 2.5, 5, 10, 20, and 40 MHz channels.<sup>48</sup> AirTouch agrees that rechannelization of the wideband spectrum is necessary to allow these portions of the band to be used as efficiently as possible. However, AirTouch emphasizes that mere rechannelization of the wideband 18 GHz frequencies is not be enough to meet the existing and future terrestrial FS needs for 18 GHz spectrum, given the loss of 18 GHz narrowband spectrum, the curtailment of available spectrum in other proceedings, the migration to upper bands like the 18 GHz band, and the growth in services using 18 GHz frequencies for support. Accordingly, AirTouch supports the allocation of additional spectrum to terrestrial FS users in other bands.<sup>49</sup>

### **III. AIRTOUCH OPPOSES THE SUGGESTION THAT FSS USERS ARE ENTITLED TO 1000 MHZ OF UNENCUMBERED SPECTRUM AT THE EXPENSE OF TERRESTRIAL FS USERS — THERE MUST BE A BALANCE**

#### **A. Terrestrial FS Users Stand to Lose Access to a Great Deal of Spectrum, Which Is Augmented by Recent Commission Actions in Other Proceedings, But Are Willing to Compromise**

The record shows that the Commission's proposed band plan represents a 53.3% *reduction* in terrestrial FS spectrum availability.<sup>50</sup> Of the remaining 46.7%, point-to-point microwave users would be required to share their operations with point-to-multipoint CARS users, which is something that is not done today because of serious coordination difficulties, as the

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<sup>47</sup> See Comments of Tadrian at 3, 8; TIA Fixed Section at 15.

<sup>48</sup> See Comments of Tadrian at 3, 8; TIA Fixed Section at 15.

<sup>49</sup> See, e.g., Comments of Comsearch at 6 (proposing rechannelizing the 23 GHz band for narrowband usage); AirTouch at 5 (proposing expanding the options of terrestrial FS users in other bands, such as the 6 and 11 GHz bands).

<sup>50</sup> See Comments of GTE at 5; Tadrian at 3; TIA at 2.



Commission knows.<sup>51</sup> As a result, the available frequencies would effectively be reduced even further for each of these terrestrial fixed systems. Moreover, FS users have already suffered or are facing spectrum losses in other Commission reallocation proceedings,<sup>52</sup> including: reallocation of the 2 GHz band to emerging technologies (PCS and MSS);<sup>53</sup> proposed designation of the upper 6 GHz band for MSS/FL;<sup>54</sup> reallocation of the 12 GHz band from FS to DBS;<sup>55</sup> and reallocation of the 28 and 31 GHz bands to LMDS and satellite services.<sup>56</sup> As one carrier states, “[t]his NPRM SIGNIFICANTLY reduces the frequencies available to the FS, continuing the trend of erosion of FS spectrum by the Commission over the last several years.”<sup>57</sup>

Accordingly, AirTouch opposes the suggestion of some satellite carriers that the Commission’s band plan “does not spread the pain of spectrum reallocation equally,” and that “GSO/FSS systems bear the brunt” of the proposal, not terrestrial FS users.<sup>58</sup> The facts show that

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<sup>51</sup> See Comments of GTE at 5 (citing *NPRM* at ¶ 27); Tadrian at 3 (citing *NPRM* at ¶ 27); TIA Fixed Section at 2 (citing *NPRM* at ¶ 27).

<sup>52</sup> See Comments of API at 4; AT&T Wireless Services, Inc. (“AT&T”) at 2-3; FWCC at 2-3; Tadrian at 3.

<sup>53</sup> See *Redevelopment of Spectrum to Encourage Innovation in the New Telecommunications Technologies*, ET Docket No. 92-2, *First Report and Order and Third Notice of Proposed Rulemaking*, 7 F.C.C.R. 6886 (1992); *Second Report and Order*, 8 F.C.C.R. 6495 (1993); *Third Report and Order and Memorandum Opinion and Order*, 8 F.C.C.R. 6589 (1993); *Memorandum Opinion and Order*, 9 F.C.C.R. 1943 (1994); *Second Memorandum Opinion and Order*, 9 F.C.C.R. 7797 (1994); see also *Allocation of Spectrum at 2 GHz for use by the Mobile-Satellite Service*, ET Docket No. 95-18, *Memorandum Opinion and Order and Third Notice of Proposed Rulemaking*, FCC 98-309 (1998).

<sup>54</sup> See *Amendment of Parts 2, 25 and 97 of the Commission’s Rules with Regard to Mobile Satellite Service Above 1 GHz*, ET Docket No. 98-142, *Notice of Proposed Rulemaking*, 13 F.C.C.R. 17107 (1998).

<sup>55</sup> See *Inquiry into the Development of Regulatory Policy in Regard to Direct Broadcast Satellites*, GN Docket No. 80-603, *Report and Order*, 90 F.C.C.2d 676 (1982).

<sup>56</sup> See *Amendment of Parts 1, 2, 21 and 25 of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band*, CC Docket No. 92-297, *First Report and Order and Fourth Notice of Proposed Rulemaking*, 11 F.C.C.R. 19005 (1996) (28 GHz Order).

<sup>57</sup> Comments of Tadrian at 4 (typeface in original).

<sup>58</sup> See, e.g., Comments of GE American Communications, Inc. (“GE American”) at Summary; see also *id.* at 10.

just the opposite is true. To mitigate the harshness of the Commission’s plan for terrestrial FS users, AirTouch, TIA, and other terrestrial FS advocates have presented balanced proposals — specifically, they are proposing to give up the 18 GHz narrowband allocations (18.58-18.82 and 18.92-19.16) in order to preserve the wideband allocations (17.7-18.14 GHz and 19.26-19.7 GHz).<sup>59</sup> With few exceptions, however, satellite users have focused on their needs exclusively and without regard to other important 18 GHz spectrum usage requirements. The Commission must reject these self-serving attempts to undermine reasonable spectrum allocation decision-making.

**B. It Is Disingenuous for FSS Users to Argue They Need 1000 MHz of Unencumbered Spectrum in the Downlink (18 GHz Band) to Match What They Have in the Uplink**

GSO/FSS providers argue strongly that they need 1000 MHz of “unencumbered” or “exclusive” spectrum in the 18 GHz band (Ka-band) for their downlinks.<sup>60</sup> Some go so far as to say that the Commission has determined that a minimum of 1000 MHz of unencumbered downlink spectrum is needed, citing to the Commission’s decision to allocate 1000 MHz of uplink spectrum (*not* unencumbered) in the 28 GHz band.<sup>61</sup> The clear implication, then, is that because the Commission has approved an alleged 1000 MHz of unencumbered spectrum in the uplink, it must do the same in the downlink because “[s]atellite systems have typically been allocated equal blocks of uplink and downlink spectrum.”<sup>62</sup> This misconstrues the facts.

Specifically, the Commission’s *28 GHz Order* addressed only the uplink allocations, not the downlinks. In so doing, it found that an aggregate of 1000 MHz of spectrum was needed to support GSO/FSS uplink needs; however, this aggregate was not all unencumbered. To the contrary,

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<sup>59</sup> See *supra* Section II.

<sup>60</sup> See, e.g., Comments of DIRECTV at 13-14; GE American at 4-5; TRW at 5; see also Capital Broadcasting Co., Inc. (“Capital Broadcasting”) at 3.

<sup>61</sup> See Comments of GE American at 4-5 (citing *28 GHz Order*); see also DIRECTV at 13.

<sup>62</sup> See *NPRM* at ¶ 25, cited in Comments of GE American at 5.

the Commission designated 750 MHz of spectrum for exclusive GSO/FSS use, and 250 MHz for co-primary shared use NGSO/MSS feeder links.<sup>63</sup> GE American, Iridium LLC (“Iridium”), and TRW Inc. (“TRW”) all recognize this in their comments.<sup>64</sup> Thus, the Commission has never stated that 1000 MHz of *unencumbered* spectrum is required to support GSO/FSS systems. It is, therefore, absolutely consistent for the Commission to propose an aggregate of 1000 MHz of spectrum on the downlink, which includes 750 MHz of unshared spectrum and 250 MHz of shared spectrum,<sup>65</sup> and not 1000 MHz of *unencumbered* spectrum. It is disingenuous for some GSO/FSS providers to suggest that the Commission has determined otherwise. Moreover, given the fact that at least one GSO/FSS provider has stated that “a total of 500 MHz of spectrum in the 17.8-19.7 GHz band” is all that is needed for GSO/FSS systems,<sup>66</sup> other GSO/FSS carriers’ claims that 1000 MHz of unencumbered spectrum is required are suspect.

#### **IV. AIRTOUCH SUPPORTS THE PETITION FOR INTERIM RELIEF FILED BY TIA’S FIXED POINT-TO-POINT COMMUNICATIONS SECTION**

The Commission has asked for comment on a Petition for Interim Relief filed by TIA’s Fixed Section and an Emergency Request for Immediate Relief filed by the Independent Cable & Telecommunications Association (“ICTA”).<sup>67</sup> TIA’s Petition requests that the Commission withdraw its announcement in Paragraph 40 of the *NPRM* that certain 18 GHz terrestrial FS

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<sup>63</sup> See *28 GHz Order*, 11 F.C.C.R. at 19029.

<sup>64</sup> See Comments of GE American at 5; Iridium at 3; TRW at 4-5.

<sup>65</sup> See *NPRM* at ¶ 29.

<sup>66</sup> See Comments of Loral at 3.

<sup>67</sup> See *Public Notice*, Report No. 98-60, DA 98-2344 (Nov. 20, 1998); Fixed Point-to-Point Communications Section, Wireless Communications Division, Telecommunications Industry Association, Petition for Interim Relief (Nov. 2, 1998) (“TIA Petition”); Independent Cable & Telecommunications Association, Emergency Request for Immediate Relief (Nov. 5, 1998) (“ICTA Emergency Request”).

applications filed after the release of the *NPRM* (September 18, 1998) be granted on a secondary basis only. Paragraph 40, in pertinent part, reads as follows:

Under this proposal, new terrestrial fixed service applications could continue to be filed and granted after the *NPRM* release date, but the licensees would have only secondary status in those bands designated for fixed satellite service use on a primary basis. Under the proposed band plan, for example, this would apply to the 18.3-18.55 GHz and 18.8-19.3 GHz bands.<sup>68</sup>

TIA argues that this announcement may be viewed as constituting a “freeze” that precludes terrestrial FS applicants from filing in the affected bands, and requests that the Commission revise Paragraph 40 to state that terrestrial FS systems applied for after September 18, 1998 be given co-primary status, subject to whatever grandfather rules the Commission ultimately adopts.<sup>69</sup> ICTA makes similar arguments on behalf of private cable operators.<sup>70</sup>

AirTouch agrees with TIA that the Commission should clarify that any terrestrial FS systems applied for after September 18, 1998 in the affected bands be given co-primary status until the effective date of a final *Report and Order* in this proceeding, at which time the systems would be grandfathered. Such action is necessary to allow operators subject to the “freeze” to “develop or expand their systems based upon plans formulated prior to the adoption of the Notice” and freeze, as the Commission has recognized in other proceedings.<sup>71</sup> Carriers have developed plans for the 18

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<sup>68</sup> *NPRM* at ¶ 40.

<sup>69</sup> See TIA Petition at 2-3.

<sup>70</sup> See generally ICTA Emergency Request.

<sup>71</sup> See, e.g., *Amendment of the Commission's Rules to Provide Channel Exclusivity to Qualified Private Paging Systems at 929-930 MHz, Order*, 8 F.C.C.R. 2460, 2460 (1993). There are material distinctions between the instant 18 GHz proceeding and the Commission's 2 GHz emerging technologies proceeding, which established a secondary status policy for all applications filed after the *NPRM*, that justify removing the secondary status policy in this case. First, in the 2 GHz proceeding, the Commission made available large amounts of additional spectrum to offset the losses FS users were suffering in the 2 GHz band, which the Commission has not proposed to do in this proceeding. Second, the Commission allowed certain major modifications to existing systems, including the filing of new applications to add additional links required to complete a communications network, which the Commission has also not proposed to do in this proceeding.

GHz band and invested time and money in those plans. Unless the “freeze” is lifted, these investments will be wrongfully stranded. Accordingly, AirTouch supports TIA’s Petition and requests that it be granted forthwith.<sup>72</sup>

Finally, AirTouch opposes the interpretation of Hughes Electronics, Inc. (“Hughes”) that any post-*NPRM* terrestrial FS license applied for in *any* part of 18 GHz band ultimately dedicated to exclusively to FSS be granted on a secondary basis.<sup>73</sup> This suggestion is patently unworkable, because it would effectively place the entire 18 GHz band off limits to terrestrial FS users until a *Report and Order* is released, since until that time terrestrial FS users will not know for sure which portions of the band will be dedicated solely to FSS use. The possibility that any applications filed in the band will be granted on a secondary basis will unfairly preclude the filing of applications in the first instance. Instead, the Commission should adopt TIA’s suggestion to continue to allow the filing of terrestrial FS applications on a co-primary basis based on the current band plan until the *Report and Order* is released, and thereafter grandfather those systems in the bands ultimately adopted for exclusive FSS use.

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*See Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, ET Docket No. 92-9, *Notice of Proposed Rulemaking*, 7 F.C.C.R. 1542, 1544-45 (1992); *Second Report and Order*, 8 F.C.C.R. 6495, 6496 (1993); *Public Notice*, “Two Gigahertz Fixed Microwave Licensing Policy,” Mimeo 23115 (May 14, 1992).

<sup>72</sup> If the Commission does not agree that new terrestrial FS applications filed in the affected bands should be granted on a co-primary basis until the *Report and Order* is released, it must at a minimum allow reasonable modifications and expansions to be made to existing terrestrial FS systems in those bands without jeopardizing primary status. *See* AirTouch Comments at 11-12 for a discussion of the types of modifications which should be permitted without losing primary status.

<sup>73</sup> *See* Comments of Hughes at 27.

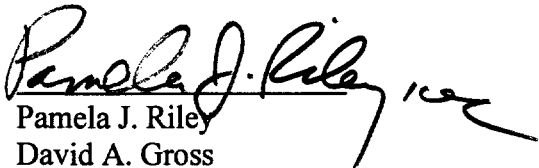
## CONCLUSION

Accordingly, AirTouch respectfully requests that the Commission adopt the rules and policies expressed herein and in its initial comments.

Respectfully submitted,

AIRTOUCH COMMUNICATIONS, INC.

By:

A handwritten signature in cursive script, appearing to read "Pamela J. Riley", followed by a horizontal line and a small flourish.

Pamela J. Riley  
David A. Gross  
Steve B. Sharkey

AirTouch Communications, Inc.  
1818 N Street, N.W.  
Washington, D.C. 20036  
(202) 293-3800

December 21, 1998

## CERTIFICATE OF SERVICE

I, Brooke Wilding, hereby certify that on this 21st day of December, 1998, copies of the foregoing "Reply Comments of AirTouch Communications, Inc." in IB Docket No. 98-172 were served via U.S. mail, postage pre-paid, on the following:

Chairman William E. Kennard\*  
Federal Communications Commission  
1919 M Street, NW  
Room 814  
Washington, D.C. 20554

Commissioner Gloria Tristani\*  
Federal Communications Commission  
1919 M Street, NW, Room 826  
Washington, DC 20554

Commissioner Michael Powell\*  
Federal Communications Commission  
1919 M Street, NW, Room 844  
Washington, DC 20554

Commissioner Harold Furchgott-Roth\*  
Federal Communications Commission  
1919 M Street, NW, Room 826  
Washington, DC 20554

Commissioner Susan Ness\*  
Federal Communications Commission  
1919 M Street, NW, Room 832  
Washington, DC 20554

David Wye\*  
Technology Advisor  
Wireless Telecommunications Bureau  
Federal Communications Commission  
2025 M Street, N.W., Suite 5002-C  
Washington, D.C. 20554

Regina Keeney\*  
Chief  
International Bureau  
Federal Communications Commission  
2000 M Street, N.W., Suite 800  
Washington, D.C. 20554

Charles Magnuson\*  
International Bureau  
Federal Communications Commission  
2000 M Street, N.W., Suite 800  
Washington, D.C. 20554

Richard B. Engelman\*  
Chief  
Planning & Negotiations Bureau  
International Bureau  
Federal Communications Commission  
2000 M Street, N.W., Suite 800  
Washington, D.C. 20554

Diane Garfield\*  
International Bureau  
Federal Communications Commission  
2000 M Street, N.W., Suite 598  
Washington, D.C. 20554

Ronald Repasi\*  
International Bureau  
Federal Communications Commission  
2000 M Street, N.W., Suite 510  
Washington, D.C. 20554

John P. Wong\*  
Chief  
Engineering and Technical Services Bureau  
International Bureau  
Federal Communications Commission  
2033 M Street, N.W., Suite 201-N  
Washington, D.C. 20554

Thomas S. Tycz\*  
International Bureau  
Federal Communications Commission  
2000 M Street, N.W., Suite 811  
Washington, D.C. 20554

Richard Ocko  
Aesco Systems  
14 South Bryn Mawr Avenue  
Bryn Mawr, PA 19010

William J. Burhop  
Executive Director  
Independent Cable &  
Telecommunications Association  
5335 Wisconsin Avenue, N.W.  
Suite 800  
Washington, D.C. 20015

Jonathan D. Blake  
Gerard J. Waldron  
Erin M. Egan  
Covington & Burling  
1201 Pennsylvania Avenue, N.W.  
Washington, D.C. 20044

Wayne V. Black  
Peter Saari  
Jack Richards  
Keller and Heckman  
1001 G Street, N.W.  
Washington, D. C. 20001

Thomas J. Keller  
John M.R. Kneuer  
Verner, Liipfert, Bernhard  
McPherson and Hand, Chartered  
901 15th Street, N.W.  
Suite 700  
Washington, D.C. 20005

Howard J. Symons  
Sara F. Seidman  
Michelle M. Mundt  
Mintz, Levin, Cohn, Ferris, Glovsky  
and Popeo, P.C.  
701 Pennsylvania Avenue, N.W.  
Suite 900  
Washington, D.C. 20004

Douglas I. Brandon  
AT&T Wireless Services, Inc.  
1150 Connecticut Avenue, N.W.  
Washington, D.C. 20036

William B. Barfield  
Jim O. Llewellyn  
BellSouth Corporation  
1155 Peachtree Street, N.E.  
Suite 1800  
Atlanta, GA 30309-3610

David G. Frolio  
BellSouth Corporation  
1133 21st Street, N.W.  
Washington, D.C. 20036

John Prendergast  
Blockston, Mordkofsky, Jackson & Dickens  
2120 L Street, N.W.  
Suite 300  
Washington, D.C. 20037



Michael F. Altschul  
Randall S. Coleman  
Lolita D. Smith  
Cellular Telecommunications  
Industry Association  
1250 Connecticut Avenue, N.W.  
Suite 200  
Washington, D.C. 20036

Leonard Robert Raish  
George Petrutsas  
Fletcher, Heald & Hildreth, PLC  
1300 North 17th Street  
11th Floor  
Arlington, VA 22209

John F. Raposa  
GTE Service Corporation  
600 Hidden Ridge, HQE03J27  
P.O. Box 152092  
Irving, TX 75015-2092

Gail. L. Polivy  
GTE Service Corporation  
1850 M Street, N.W.  
Washington, D.C. 20036

Victor Tawil  
Association for Maximum  
Service Television, Inc.  
1776 Massachusetts Avenue, N.W.  
Washington, D.C. 20036

Stephen A. Weiswasser  
Covington & Burling  
1201 Pennsylvania Avenue, N.W.  
Washington, D.C. 20044

Jean L. Kiddoo  
Nancy Killien Spooner  
Swidler Berlin Shereff Friedman, LLP  
3000 K Street, N.W.  
Suite 300  
Washington, D.C. 20007

Betsy Stover Granger  
Pacific Bell Mobile Services  
4420 Rosewood Drive  
Fourth Floor  
Pleasanton, CA 94588

Carol L. Tacker  
SBC Wireless, Inc.  
17330 Preston Road  
Suite 100A  
Dallas, TX 75252

Robert M. Lynch  
SBC Telecommunications Inc.  
175 E. Houston  
Suite 1250  
San Antonio, TX 78205

Durward D. Dupre  
SBC Communications, Inc.  
One Bell Plaza  
Suite 3707  
Dallas, TX 75202

James R. Gordon  
Tadiran Microwave Networks  
4000 Greenbriar Drive  
Suite 100A  
Stafford, TX 77477

Ron Coles  
Eric Schimmel  
Fletcher, Heald & Hildreth, PLC  
1300 North 17th Street  
11th Floor  
Arlington, VA 22209

Paul Sinderbrand  
Wilkinson, Barker, Knauer & Quinn, LLP  
2300 N Street, N.W.  
Suite 700  
Washington, D.C. 20037-1128

Timothy R. Graham  
Joseph M. Sandri, Jr.  
Barry J. Ohlson  
Winstar Communications, Inc.  
1146 19th Street, N.W.  
Washington, D.C. 20036

Patrica A. Mahoney  
Brent H. Weingardt  
Iridium LLC  
1575 Eye Street, N.W.  
Washington, D.C. 20005

Jay L. Birnbaum  
Cheryl L. Hudson  
Skadden, Arps, Slate Meagher & Flom, LLP  
1440 New York Avenue, N.W.  
Washington, D.C. 20005

David S. Turetsky  
Terri B. Natoli  
Carolyn K. Stup  
Teligent, Inc.  
8065 Leesburg Pike  
Vienna, VA 22182

Craig Holman  
Space & Communications Group  
The Boeing Company  
P.O. Box 3999, M/S 84-10  
Seattle, WA 98124-2499

Joseph P. Markoski  
Herbert E. Marks  
David A. Nall  
Bruce A. Olcott  
Squire, Sanders & Dempsey, LLP  
1201 Pennsylvania Avenue, N.W.  
P.O. Box 407  
Washington, D.C. 20044-0407

Marvin Rosenberg  
Patricia Y. Lee  
Holland & Knight LLP  
2100 Pennsylvania Avenue, N.W.  
Suite 400  
Washington, D.C. 20037

Christopher R. Hardy  
Comsearch  
2002 Edmund Halley Drive  
Reston, VA 20191

Gary M. Epstein  
James H. Barker  
Kimberly S. Reindl  
Latham & Watkins  
1001 Pennsylvania Avenue, N.W.  
Suite 1300  
Washington, D.C. 20004-2505

Philip V. Otero  
GE American Communications, Inc.  
Four Research Way  
Princeton, NJ 08540

Peter A. Rohrbach  
Karis A. Hasting  
F. William LeBeau  
Hogan & Hartson LLP  
555 Thirteenth Street, N.W.  
Washington, D.C. 20004

Gary M. Epstein  
John P. Janka  
Arthur S. Landerholm  
Latham & Watkins  
1001 Pennsylvania Avenue, N.W.  
Suite 1300  
Washington, D.C. 20004

David M. Drucker  
KaStar Satellite Communications Corp.  
9137 East Mineral Circle  
Suite 140  
Englewood, CO 80112

Stephen M. Piper  
Lockheed Martin Global Communications  
6801 Rockledge Drive  
Bethesda, MD 20817

Gerald C. Musarra  
Lockheed Martin Global  
Telecommunications  
Cyrstal Square 2, Suite 403  
1725 Jefferson Davis Highway  
Arlington, VA 22202

Philip L. Verveer  
Stephen R. Bell  
Jennifer D. McCarthy  
Wilkie Farr & Gallagher  
Three Lafayette Centre  
1155 21st Street, N.W.  
Washington, D.C. 20036-3384

Michael D. Kennedy  
Barry Lambergerman  
Motorola, Inc.  
1350 I Street, N.W.  
Washington, D.C. 20005

Philip L. Malet  
James M. Talens  
Steptoe & Johnson LLP  
1330 Connecticut Avenue, N.W.  
Washington, D.C. 20036

Thomas R. Gibbon  
Anthony M. Black  
Bell, Boyd & Lloyd  
1615 L Street, N.W.  
Suite 1200  
Washington, D.C. 20036

Bruce D. Jacobs  
Stephen J. Berman  
Fisher Wayland Cooper Leader  
& Zaragoza LLP  
2001 Pennsylvania Avenue, N.W.  
Suite 400  
Washington, D.C. 20006

Phillip L. Spector  
Jeffrey H. Olson  
Diane C. Gaylor  
Paul, Weiss, Rifkind, Wharton & Garrison  
1615 L Street, N.W.  
Suite 1300  
Washington, D.C. 20036

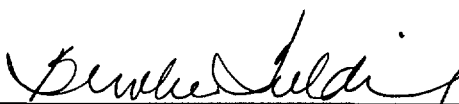
Gerald S. Rosenblatt  
William Lye  
Telecommunications Industry Association  
2500 Wilson Boulevard  
Suite 300  
Arlington, VA 22201

Mark A. Grannis  
Evan R. Grayer  
Harris, Wiltshire & Grannis LLP  
1200 Eighteenth Street, N.W.  
Washington, D.C. 20036

Norman P. Leventhal  
Stephen D. Baruch  
David S. Keir  
Leventhal, Senter & Lerman, PLLC  
2000 K Street, N.W.  
Suite 600  
Washington, D.C. 20006

Albert H. Kramer  
Robert F. Aldrich  
Valerie M. Furman  
Dickstein Shapiro Morin  
& Oshinsky LLP  
2101 L Street, N.W.  
Washington, D.C. 20037-1526

\* By hand

  
\_\_\_\_\_  
Brooke Wilding